

METHOD OF MAKING FIBROUS MATS AND FIBROUS MATS

ABSTRACT

Making mats using glass fibers having a diameter of about 13 +/- 3 microns, bound with a binder formed from a homopolymer or a copolymer of polyacrylic acid and a polyol produces fibrous nonwoven mats having high tensile strength and also an unexpected high flame resistance considering the amount of oxygen in the binder. Mats of the present invention pass the National Fire Protection Association's (NFPA) Flammability Test. Tabor stiffness of these mats is greater than about 40, preferably greater than about 50 and most preferably greater than about 55. Air permeability of the mats is preferably within the range of about 500 to about 800 CFM/sq. ft. Methods of making the mat are also disclosed.